

CLAIMS

1. A method for use in a wireless receiver, comprising:

(a) processing a first synchronization channel (305) of a received wireless signal to acquire slot synchronization; and

5 (b) processing a second synchronization channel of the received wireless signal to acquire frame synchronization in such a way that the first synchronization channel is used for detecting a change in channel conditions (310).

2. The method of claim 1, wherein the first synchronization channel is a primary
10 synchronization subchannel (PSCH) and the second synchronization channel is a secondary synchronization subchannel (SSCH) of a universal mobile telephone system (UMTS).

3. The method of claim 1, wherein step (b) includes the steps of:

processing the second synchronization channel to acquire frame synchronization;

15 processing the first synchronization channel to provide correlation data associated therewith; and

if the correlation data is less than a predefined value, executing the steps of

halting the processing of the second synchronization channel to acquire frame
synchronization;

20 if an elapsed time for the processing of the second synchronization channel prior to being halted is less than a predefined time value, starting over with step (a);
and

25 if the elapsed time is greater than the predefined value; estimating a scrambling code group conveyed in the secondary synchronization channel based on data already accumulated.

4. A method for use in a wireless receiver, the method comprising the steps of:

processing a first synchronization channel of a received wireless signal to acquire
frame synchronization; and

30 during the processing of the first synchronization channel, processing a second synchronization channel for detecting a change in channel conditions.

5. The method of claim 4, wherein the second synchronization channel is a primary synchronization subchannel (PSCH) and the first synchronization channel is a secondary synchronization subchannel (SSCH) of a universal mobile telephone system (UMTS).

5 6. The method of claim 4, wherein the processing of the second synchronization channel step includes the steps of:

 processing the second synchronization channel to provide correlation data associated therewith; and

 if the correlation data is less than a predefined value, executing the steps of

10 halting the processing of the first synchronization channel; and

 if an elapsed time for processing the first synchronization channel prior to being halted is greater than a predefined value; estimating a scrambling code group conveyed in the first synchronization channel based on data already accumulated, otherwise, starting the processing of the first synchronization channel anew.

15

7. Wireless equipment comprising:

 a front end (105) for receiving a wireless signal and for providing a stream of received samples;

20 a primary synchronization element (205) operative on the received samples for acquiring slot synchronization to a primary synchronization signal of the received wireless signal and for further processing the primary synchronization signal subsequent to slot synchronization for providing data representative of a channel condition;

 a secondary synchronization element (210) operative on the received samples for acquiring frame synchronization to a secondary synchronization signal of the received
25 wireless signal; and

 a processor (135), responsive to the further processing of the primary synchronization signal by the primary synchronization element, for halting the secondary synchronization element as a function of the data representative of the channel condition.

30 8. The wireless equipment of claim 7, wherein, subsequent to slot synchronization, the primary synchronization element continues to process the primary synchronization signal of the received wireless signal simultaneously with processing of the received wireless signal by the secondary synchronization element.

9. The wireless equipment of claim 7, wherein the data representative of the channel condition is representative of a correlation between a known primary synchronization code and the received primary synchronization signal, and the processor halts the secondary synchronization element if the correlation is less than a predefined value.

10. The wireless equipment of claim 7, wherein, once halted, the secondary synchronization element provides an estimate for a scrambling code group to the processor if an elapsed time for acquiring frame synchronization prior to being halted is greater than a predefined value.

11. The wireless equipment of claim 7, wherein, once halted, the processor restarts the secondary synchronization processor if an elapsed time for acquiring frame synchronization prior to being halted is less than a predefined value.